

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

56 MAR 1944

Date of writing Report 2/3/1944 When handed in at Local Office 3/3/1944 Port of WEST HARTLEPOOL
 No. in Survey held at WEST HARTLEPOOL Date, First Survey 13th August, 1942 Last Survey 29th February, 1944
 Reg. Book IN 50 (Number of Visits 55)
 on the STEEL SCREW STEAMER "EMPIRE SEDLEY" Tons { Gross 2905.45
 Net 1640.70
 Built at WEST HARTLEPOOL By whom built WM. GRAY & CO. LTD. Yard No. 1163 When built 1944
 Engines made at WEST HARTLEPOOL By whom made CENTRAL MARINE ENGINE WORKS Engine No. 1163 When made 1944
 Boilers made at WEST HARTLEPOOL By whom made CENTRAL MARINE ENGINE WORKS Boiler No. 1163 When made 1944
 Registered Horse Power 281 Owners MINISTRY OF WAR TRANSPORT Port belonging to WEST HARTLEPOOL
 Nom. Horse Power as per Rule 281 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended OCEAN GOING

ENGINES, &c.—Description of Engines INVERTED TRIPLE EXPANSION Revs. per minute 72 ✓
 Dia. of Cylinders 20 x 31 x 55 ✓ Length of Stroke 39 ✓ No. of Cylinders 3 ✓ No. of Cranks 3 ✓
 Crank shaft, dia. of journals as per Rule 11.0 ✓ Crank pin dia. 11 1/4 ✓ Mid. length breadth 16 ✓ Thickness parallel to axis 6 3/8 ✓
 as fitted 11 1/4 ✓ Crank webs as per Rule 11.0 ✓ shrunk Thickness around eye-hole 4 3/8 ✓
 Intermediate Shafts, diameter as per Rule 10.47 ✓ Thrust shaft, diameter at collars as per Rule 11.0 ✓
 as fitted 10 3/4 ✓ as fitted 11 1/4 ✓
 Tube Shafts, diameter as per Rule ✓ Screw Shaft, diameter as per Rule 11.78 ✓
 as fitted as fitted ✓ Is the { tube screw } shaft fitted with a continuous liner { Yes ✓
 as fitted 12 1/4 ✓
 Bronze Liners, thickness in way of bushes as per Rule 6.57 ✓ Thickness between bushes as per Rule 4.92 ✓
 as fitted 1 1/2 ✓ as fitted 1 3/4 ✓ Is the after end of the liner made watertight in the
 propeller boss Yes ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length ✓
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive —
 If two liners are fitted, is the shaft lapped or protected between the liners — Is an approved Oil Gland or other appliance fitted at the after end of the tube
 at CNO ✓ If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 4' 3 3/8 ✓
 Propeller, dia. 15' 9" ✓ Pitch 14' 9" ✓ No. of Blades 4 ✓ Material Balston whether Moveable CNO ✓ Total Developed Surface 75 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 ✓ Diameter 3" ✓ Stroke 26" ✓ Can one be overhauled while the other is at work Yes ✓
 Bilge Pumps worked from the Main Engines, No. 2 ✓ Diameter 4 1/4" ✓ Stroke 26" ✓ Can one be overhauled while the other is at work Yes ✓
 Feed Pumps { No. and size 2 @ 3" x 26" / 2 @ 8" x 15" SINGLES } Pumps connected to the { No. and size 2 @ 4 1/4" x 26" / 1 @ 10" x 11" x 10" DUPLEX }
 How driven MAIN ENGINE / INDEPENDENT STEAM Main Bilge Line How driven MAIN ENGINE / INDEPENDENT STEAM
 Ballast Pumps, No. and size 1 @ 10" x 11" x 10" DUPLEX ✓ Lubricating Oil Pumps, including Spare Pump, No. and size —
 Are two independent means arranged for circulating water through the Oil Cooler — Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps:—In Engine and Boiler Room 5 @ 3" 1 @ 4" ✓
 In Pump Room — In Holds, &c. Nº 1 2 @ 3" Nº 2 2 @ 3" BOILER ROOM 2 @ 3"
ENG RM. 3 @ 3" Nº 3 4 @ 2 1/2" TUNNEL WELL 1 @ 2 1/2" ✓
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 6" ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1 @ 4" ✓ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes ✓
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes ✓
 Are all Sea Connections fitted direct on the skin of the ship On reservoir ✓ Are they fitted with Valves or Cocks Both ✓
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes ✓ Are the Overboard Discharges above or below the deep water line Below ✓
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes ✓
 What Pipes pass through the bunkers CNO ✓ How are they protected —
 What pipes pass through the deep tanks — Have they been tested as per Rule —
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes ✓
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
 compartment to another Yes ✓ Is the Shaft Tunnel watertight Yes ✓ Is it fitted with a watertight door CNO ✓ worked from —

MAIN BOILERS, &c.—(Letter for record 3 ✓) Total Heating Surface of Boilers 21147 ✓
 Which Boilers are fitted with Forced Draft Both ✓ Which Boilers are fitted with Superheaters CNO ✓
 No. and Description of Boilers 2 Single ended multitubular Working Pressure 200 lbs ✓
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes ✓
 IS A DONKEY BOILER FITTED? CNO ✓ If so, is a report now forwarded? —
 Can the donkey boiler be used for domestic purposes only —
 PLANS. Are approved plans forwarded herewith for Shafting 2-10-40 ✓ Main Boilers 2-9-42 ✓ Auxiliary Boilers — ✓ Donkey Boilers — ✓
 (If not state date of approval) 28-10-40

Superheaters — General Pumping Arrangements — Oil fuel Burning Piping Arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes ✓
 State the principal additional spare gear supplied —

The foregoing is a correct description
 FOR THE CENTRAL MARINE ENGINE WORKS

(W. Gray & Co. Ltd.)

Manufacturer.

GENERAL MANAGER



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Dates of Survey while building
During progress of work in shops - - 1943 - Aug 13, Sept 24, Oct 4, 6, 19, 23, 24, 28, 30, Nov 1, 3, 5, 9, 10, 11, 12, 15, 16, 18, 19, 24, 25, 29, 30, Dec 1, 2, 6, 8, 10, 17, 30, 31, 28 - 1944, Jan 5, 6, 15, 17, 19, 21.
During erection on board vessel - - - 1943, Nov 19, 26, Dec 9, 13, 17, 22, 30 - 1944, Jan 12, 20, 25, Feb 9, 15, 16, 20, 23, 29
Total No. of visits 55

Dates of Examination of principal parts - Cylinders 6-10-43 - 11-11-43. Slides 11-11-43. Covers 11-11-43
Pistons 11-11-43. Piston Rods 11-11-43. Connecting rods 11-11-43.
Crank shaft 26-10-43 - 16-11-43. Thrust shaft 2-12-43 - 8-12-43. Intermediate shafts 24-11-43 - 10-12-43.
Tube shaft - Screw shaft 24-11-43 - 10-12-43. Propeller 10-12-43.
Stern tube 10-12-43. Engine and boiler seatings 26-11-43. Engines holding down bolts 12-1-44.
Completion of fitting sea connections 26-11-43.
Completion of pumping arrangements 15-2-44. Boilers fixed 12-1-44. Engines tried under steam 15-2-44.
Main boiler safety valves adjusted 15-2-44. Thickness of adjusting washers 2 1/4" 3 1/2" 3 1/2" 3 1/2"
Crank shaft material 1746T STEEL Identification Mark N° 1591 CP. Thrust shaft material 1746T STEEL Identification Mark N° 1746 CP.
Intermediate shafts, material 1746T STEEL Identification Mark N° 1748 T9 CP 1748, 192 CP. Tube shaft, material - Identification Mark -
Screw shaft, material 1746T STEEL Identification Mark N° 1747. Steam Pipes, material SD STEEL. Test pressure 600 lbs. Date of Test 14-1-44.
Is an installation fitted for burning oil fuel. No. Is the flash point of the oil to be used over 150° F. -
Have the requirements of the Rules for the use of oil as fuel been complied with -

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. No. If so, have the requirements of the Rules been complied with -
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with -
Is this machinery duplicate of a previous case. Yes. If so, state name of vessel S.S. EM. HARCOURT, RAT N° 18510.

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boilers of this vessel have been built under special survey and in accordance with the approved plans and specification. The workmanship and materials have been found good. Upon completion they were examined under full working conditions and found satisfactory. It is recommended that the machinery of this vessel be classed in the Register Book of LMC 2.44. 298 F.D.C. Note Basic Bessemer steel tubes. All auxiliary steam pipes to be submitted for examination after 4 years.

The amount of Entry Fee ... £ 4 : 0 : When applied for, 3/3/1944
Special ... £ 67 : 3 :
SUPERVISION.
Donkey Boiler Fee ... £ 16 : 16 : When received,
Travelling Expenses (if any) £ : : 19

Committee's Minute THURS 9 MAR 1944

Assigned + LMC 2.44



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